

A B S T R A C T

A multi-beam antenna transmitter/receiver includes reception beam formation units ($104_1 - 104_M$) which form a plurality of reception beams, and transmission beam formation units ($113_1 - 113_J$) which
5 form a plurality of transmission beams. The multi-beam antenna transmitter/receiver further includes reception beam calculation units ($108_1 - 108_M$) which calculate overall reception qualities from the reception qualities for the path delays of user signals for respective
10 reception beams, and a transmission beam selection unit (109) which selects a reception beam excellent in overall reception quality and selects a transmission beam having a direction which coincides with or is close to the direction of the selected reception beam. An
15 optimum transmission beam can be selected even in the multipath environment.